



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,103	01/19/2001	Kenichi Kurata	Q62224	4519

7590 01/11/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Ave., N.W.
Washington, DC 20037

EXAMINER

LASTRA, DANIEL

ART UNIT	PAPER NUMBER
----------	--------------

3622

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,103

Applicant(s)

KURATA ET AL

Examiner

DANIEL LASTRA

Art Unit

3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 3 and 5-52 have been examined. Application 09/764,103 (Image-forming system employing a cartridge and providing a benefit to a user) has a filing date 01/19/2001 and claims foreign priority# 2000-014050 (01/19/2000).

Response to Amendment

2. In response to Non Final Rejection dated 07/06/04, the Applicant amended claims 1, 3, 520, 25-28, 33-36, 42-46, 51, 52, cancel claims 2 and 4.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 40 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 40 is not within the technological arts.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts"

Art Unit: 3622

has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed

subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in

Art Unit: 3622

State Street (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, independent claim 40 recite a “useful, concrete and tangible result” (providing a benefit to a user), however the claims recite no structural limitations (i.e., computer implementation), and so they fail the first prong of the test (technological arts).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 41-44 and 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helterline et al (U.S. 6,039,430) in view of Hayward et al (U.S. 6,629,134).

As per claim 1, Helterline teaches:

An image-forming system employing an image-forming apparatus having a removable cartridge possessing a memory element, comprising:

a reading component for reading information from the memory element (see column 8, lines 29-65); and

an executing component for executing processing for providing a benefit to a user based on information read by the reading component (see column 8, lines 29-65),

Helterline fails to teach *wherein the information read is one of user support information, for supporting use of the image-forming apparatus and a URL of a site, on a communication network, possessing the user support information; and the executing component executes processing for supporting the user based on the read information.*

However, Hayward teaches a system that detects computers' peripherals conditions and provides user support based upon said detection (see column 6, lines 20-57).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Helterline would transmit to a remote server computers peripheral conditions to determine the necessary users support information, as taught by Hayward. In this way the information provided is not only specific to the product configuration of the peripheral as it exists in the product's life cycle, but also specific to the peripheral condition sensed.

Claim 3 contains the same limitations as claim 1 therefore the same rejection is applied.

As per claim 41, Helterline teaches:

A method for providing information in online processing fashion from an information providing server in correspondence to a request from a client connected so

Art Unit: 3622

as to permit communication with an image-forming apparatus in which a cartridge equipped with a memory element is replaceably installed, the method comprising:

(a) a step wherein the client uses information stored in the memory element to connect to the information-providing server or to gain access to information thereon (see column 8, lines 29-45);

(b) a step wherein the client sends printing environment information indicating a printing environment of the image-forming apparatus to the information-providing server (see column 8, lines 10-45); and

Helterline fails to teach (c) a step wherein the information-providing server sends printing execution information capable of being used to execute printing at the image-forming apparatus connected so as to permit communication with the client to the client in correspondence to information sent to the information-providing server (see column 8, lines 29-65). However, the same rejection applied to claim 1 is applied to claim 41.

As per claim 42, Helterline teaches:

The method for providing information according to claim 41 wherein the printing execution information comprises control software used by the client or an apparatus connected so as to permit communication with the client during printing using the cartridge (see figure 3; column 5, lines 17-31; column 8, lines 29-45).

As per claim 43, Helterline teaches:

The method for providing information according to claim 41 wherein the printing execution information comprises printing data for supply to the image-forming apparatus (see column 7, lines 5-21).

As per claim 44, Helterline fails to teaches:

The method for providing information according to claim 41 wherein the step (c) further comprises a step wherein information related to a cartridge capable of being used by the image-forming apparatus is provided to a user of the client. However, the same rejection applied to claim 1 is applied to claim 44.

Claim 47 contains the same limitations as claim 41 therefore the same rejection is applied.

Claim 48 contains the same limitations as claim 41 therefore the same rejection is applied.

Claim 49 contains the same limitations as claim 41 therefore the same rejection is applied.

Claim 50 contains the same limitations as claim 41 therefore the same rejection is applied.

Claim 51 contains the same limitations as claim 41 therefore the same rejection is applied.

Claim 52 contains the same limitations as claim 41 therefore the same rejection is applied.

Claims 5-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helterline et al (U.S. 6,039,430) in view of Meade (US 6,405,214) and further in view of Eggleston (U.S. 6,061,660).

As per claim 11, Helterline teaches:

Art Unit: 3622

An image-forming system employing a host apparatus and an image-forming apparatus which are mutually connected, comprising:

a replaceable cartridge possessing a memory element being installed in the image forming apparatus (see figure 2A, item 38; column 8, lines 59-65)

Helterline fails to teach

and prize data, being a prize itself or data for obtaining a prize from a prescribed prize awarding organization, being stored in the memory element;

a component that determines whether something has been won in connection with use of the image-forming apparatus or the host apparatus, and reads the prize data from the memory element and uses the prize data to award a prize to a user when the results of that determination indicate that something has been won. However, Meade teaches a system where users are awarded points, promotions or discounts on, for instance, toner cartridge, to the user based on the users' actual printing profile (see column 5, lines 1-20). Eggleston teaches a system where sponsors define different incentive programs to allow customers to participate and win prizes, such as points, discounts, coupons or the like (see column 13, lines 42-67; column 1, lines 35-46). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Helterline would use the users' printer usage data to determine if users have won prizes, as taught by Meade and Eggleston. This feature would encourage users to print more pages and would also serve to target promotions to users based upon the users printing profile.

As per claim 5, Helterline teaches:

Art Unit: 3622

An image-forming system employing a host apparatus and an image-forming apparatus which are mutually connected, comprising:

a replaceable cartridge possessing a memory element being installed in the image forming apparatus (see column 4, lines 7-26), and

Helterline fails to teach:

lottery determination data for determining whether something has been won being stored in the memory element; a reading component for reading the lottery determination data from the memory element; a lottery determination component that uses lottery determination data read by the reading component to determine whether something has been won; and a prize awarding component that performs processing for awarding a prize to a user in correspondence to the results of a determination carried out by the lottery determination component when the results of such determination indicate that something has been won. The same rejection applied to claim 11 is applied to claim 5.

As per claim 6, Helterline teach the image-forming system according to claim 5 wherein the prize awarding component records data indicating that something has been won in the memory element of the cartridge when the results of a determination carried out by the lottery determination component indicate that something has been won, as a result of which the user is made able to receive the prize upon exchange of the cartridge therefor. The same rejection applied to claim 5 is applied to claim 6.

As per claim 7, Helterline teach the image-forming system according to claim 5 wherein the prize awarding component provides the user with information indicating that

Art Unit: 3622

something has been won when the results of a determination carried out by the lottery determination component indicate that something has been won, as a result of which the user is made able to receive the prize by notifying a prescribed organization of the information indicating that something has been won. The same rejection applied to claim 5 is applied to claim 7.

As per claim 8, Helterline teach the image-forming system according to claim 5 wherein prize data, being the prize itself or data for obtaining the prize from a prescribed prize awarding organization, is stored in the memory element, and the prize awarding component reads the prize data from the memory element when the results of a determination carried out by the lottery determination component indicate that something has been won, and uses the prize data to award the prize to the user. The same rejection applied to claim 5 is applied to claim 8.

As per claim 9, Helterline teach the image-forming system according to claim 5 wherein the lottery determination data is win-or-lose data that indicates directly whether something has been won, and the lottery determination component determines directly from the win-or-lose data whether something has been won. The same rejection applied to claim 5 is applied to claim 9.

As per claim 10, Helterline teach the image-forming system according to claim 5 wherein the lottery determination data is encoded lottery data, and the lottery determination component determines whether something has been won by performing prescribed processing on the encoded lottery data. The same rejection applied to claim 5 is applied to claim 10.

As per claim 12, Helterline and

The image-forming system according to claim 11 wherein the prize data comprises at least one species selected from among the group consisting of image data serving as a prize itself, image-forming apparatus driver information serving as a prize itself, a keyword or password which must be supplied to a prescribed prize awarding organization in order obtain a prize, and a URL of a network site which awards a prize.

The same rejection applied to claim 11 is applied to claim 12.

As per claim 13, Helterline teaches:

An image-forming system employing a host apparatus and an image-forming apparatus which are mutually connected, comprising:

a replaceable cartridge possessing a memory element being installed in the image forming apparatus, and usage data indicating an amount of use to date of the image-forming apparatus or the cartridge being stored in the memory element (see column 9, lines 1-11);

a reading component that reads the usage data from the memory element (see column 9, lines 1-11); and

Helterline fails to teach a prize awarding component that performs processing for awarding a prize to a user in correspondence to the usage data read by the reading component. The same rejection applied to claim 11 is applied to claim 13.

As per claim 14, Helterline does not expressly teach the image-forming system according to claim 13 further comprising a component for preventing repeated awarding of prizes based on the same usage data. However, Eggleston teaches a system that

Art Unit: 3622

verifies the accuracy of fulfillment of awards (see column 41, lines 20-25; column 43, lines 24-60). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Helterline would keep track of the printer usage data to determine the credits that would be extended to users and would use the Eggleston's verification system to prevent that prizes are awarded incorrectly. Preventing repeated awarding of prizes would control the Helterline's expenses of running the system.

Claim 15 contains the limitations as claims 11 and 12 therefore the same rejection is applied.

As per claim 16, the image-forming system according to claim 5, 11, or 15. The same rejection applied to claims 5, 11 and 15 is applied.

Claim 17 contains the same limitations as claim 5 therefore the same rejection is applied.

Claim 18 contains the same limitations as claim 11 therefore the same rejection is applied.

Claim 19 contains the same limitations as claim 13 therefore the same rejection is applied.

Claim 20 contains the same limitations as claim 15 therefore the same rejection is applied.

Claim 21 contains the same limitations as claim 5 therefore the same rejection is applied.

Art Unit: 3622

Claim 22 contains the same limitations as claim 11 therefore the same rejection is applied.

Claim 23 contains the same limitations as claim 13 therefore the same rejection is applied.

Claim 24 contains the same limitations as claim 15 therefore the same rejection is applied.

Claim 25 contains the same limitations as claim 5 therefore the same rejection is applied.

Claim 26 contains the same limitations as claim 11 therefore the same rejection is applied.

Claim 27 contains the same limitations as claim 13 therefore the same rejection is applied.

Claim 28 contains the same limitations as claim 15 therefore the same rejection is applied.

Claim 29 contains the same limitations as claim 5 therefore the same rejection is applied.

Claim 30 contains the same limitations as claim 5 therefore the same rejection is applied.

Claim 31 contains the same limitations as claim 13 therefore the same rejection is applied.

Claim 32 contains the same limitations as claim 15 therefore the same rejection is applied.

Claim 33 contains the same limitations as claim 5 therefore the same rejection is applied.

Claim 34 contains the same limitations as claim 11 therefore the same rejection is applied.

Claim 35 contains the same limitations as claim 11 therefore the same rejection is applied.

Claim 36 contains the same limitations as claim 15 therefore the same rejection is applied.

Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helterline et al (U.S. 6,039,430) in view of Meade (US 6,405,214).

As per claim 37, Helterline teaches:

A cartridge for an image-forming apparatus, comprising:

a memory element for storing user information (see column 6, lines 54 – column 7, line 5) Helterline fails to teach for identifying a user of the image-forming apparatus, wherein the user information is not stored in the memory element at the time of shipping but is written thereto by the image-forming apparatus following installation thereof in the image-forming apparatus, as a result of which the cartridge makes it possible for an external user management system accessing the user information stored in the memory element to identify a user of the cartridge and perform processing for providing a benefit to the user so identified. However, Meade teaches a system that identifies a users' printing profile and uses this information to target promotions and discounts to the users (see column 5, lines 5-20). Therefore, it would have been obvious to a person of

Art Unit: 3622

ordinary skill in the art at the time the application was made, to know that Helterline would use the users' usage profile data to target advertisements or promotions to users, as taught by Meade. This feature would be an incentive to users to use the printing device as the users would receive prizes or discounts based upon the usage printing data.

Claim 38 contains the same limitations as claim 37 therefore the same rejection is applied.

Claim 39 contains the same limitations as claim 37 therefore the same rejection is applied.

As per claim 40, Helterline teaches:

An image-forming apparatus cartridge recovery method comprising:

a step wherein a used cartridge is recovered (see column 7, lines 1-5);

Helterline fails to teach:

a step wherein information is acquired for identifying a user of the cartridge from an image-forming apparatus in which the cartridge is or was installed or from a memory element of the cartridge so recovered;

a step wherein a user of the cartridge is identified from the information so acquired; and a step wherein processing is performed for providing a benefit to the user so identified. However, the same rejection applied to claim 37 is applied to claim 40.

Claims 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helterline et al (U.S. 6,039,430) in view of Meade (US 6,405,214) and further in view of Hayward et al (U.S. 6,629,134).

As per claim 45, Helterline teaches:

The method for providing information according to any one of claims 41 through 44 but fails to teach wherein the information stored in the memory element comprises a password that will allow the client to gain permission to access information on the information-providing server; and the step (a) further comprises a step wherein the client uses the password to connect to the information-providing server or to gain access to information thereon. Meade teaches a system that uses cookies, which contains passwords and users' ID, to allow users to log in to third-party websites to transmit the users' printing profile data (see column 2, lines 15-25; column 5, lines 4-20). Hayward teaches a system that detects users' computers peripherals conditions and provides to the users support information based upon said detection (see column 6, lines 20-57). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Helterline and Meade would transmit to a remote server users' computer peripheral conditions for the purpose of transmitting to the users support information and target promotions, as taught by Hayward. In this way the information provided is not only specific to the product configuration of the peripheral as it exists in the product's life cycle, but also to the peripheral condition sensed.

As per claim 46, Helterline teaches the method for providing information according to claim 45 but fails to teach wherein the information on the information-providing server that the user is permitted to access varies in correspondence to the password. The same rejection applied to claim 45 is applied to claim 46.

Response to Arguments

5. Applicant's arguments filed 10/06/04, with respect to the rejection(s) of claim(s) 1-52 under Helterline have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hayward et al (U.S. 6,629,134). Applicant's argument in respect to Section 112 rejection is persuasive and therefore, the rejection has been withdrawn.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LASTRA whose telephone number is 703-306-5933. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ERIC W STAMBER can be reached on 703-305-8469. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DL

Daniel Lastra
December 30, 2004

Yeholaga Lastra
Primary Examiner
AU 3622